Highlights in this issue

This issue of *HPB* is dedicated to the most high profile oral presentations at the AHPBA meeting in Miami Beach in February 2014 with almost 800 attendees, the largest in the history of the AHPBA. As in past years, the AHPBA's dedication to submission of the highest impact work from across the Americas have been a strong support for the increased visibility of *HPB*. *HPB* has seen a steady rise in impact factor, at least in part from the dedicated efforts of HPB surgeons across the Americas, with the most recent 2013 impact factor of 2.05! We are all proud of this accomplishment and congratulate Professor James Garden and other members of the Editorial Board and journal staff.

Eleven scientific submissions are included in this journal feature. Prediction of malignancy in the setting of intraductal papillary mucinous neoplasm (IPMN) has been variable, as indicated by *Roch et al*. This group analyzed 340 patients who underwent surgical resection for IPMN at a single center and found varying criteria of risk, including no significant risk of malignancy, worrisome features (WF), or high risk stigmata (HRS). Patients with WF had higher rates of malignancy than those in the no criteria group (26 vs 4%) while the HRS group had the highest rate. Clinical parameters played an important role in risk assessment and should be included as a routine component of assessment.

Liver failure following major hepatectomy remains an important cause of complications and mortality. *Etra et al.* investigated 607 patients undergoing hepatectomy and recorded this complication in 10% of their patients. A postoperative day three (POD3) total bilirubin of ≥3 mg/dL was the only early perioperative factor associated with hepatic insufficiency, defined as a bilirubin ≥ 7 mg/dL on POD 7, or new onset ascites. When POD3 bilirubin was ≥3, major complications and 90 day mortality were significantly increased. This finding may allow for early identification of patients at risk, who may require more intensive management. Failure of hepatic regeneration following hepatectomy is the leading cause of postoperative liver failure. *Squires et al.* investigated hypophosphatemia as a predictor of hepatic regeneration and postoperative hepatic insufficiency (PHI). In 719 patients who underwent major hepatectomy those who did not develop hypophosphatemia by POD 3 (<2.4 mg/dL) had a significantly increased rate of PHI, major complications, and mortality. Failure to develop hypophosphataemia within 72 hours after major hepatectomy may be a marker for delayed hepatic regeneration and PHI.

Prior reports suggest that center case volume is associated with surgical outcomes. *Bliss et al.* utilized the nationwide inpatient sample (NIS) database from 2004–2011 to assess inpatient mortality and morbidity following pancreatic resection to lend support to the argument that patients would benefit by having surgery at high volume centers. Centers were stratified based on low (<5 cases per year), medium (5–18 cases per year), or high volume (>18 cases per year). Impressively, the authors investigated over 129,000 patients undergoing pancreatectomy and found a crude inpatient mortality rate of 4.3% and a 36% rate of complications. A shift occurred between 2004 and 2011 with 73% of patients undergoing pancreatic surgery in a high volume center in 2011, compared with 59% in 2004. High volume centers had lower mortality, complication rates, and a shorter length of stay.

An area of continuing controversy relates to venous thromboembolic (VTE) prophylaxis in liver surgery. *Weiss et al.* conducted a web based survey of VTE prophylaxis reporting that while 98% of liver surgeons used some form of VTE prophylaxis, there was significant variability with the majority (91%) utilizing sequential compression devices (SCD), and only 31% utilizing unfractionated heparin and 32% utilizing low molecular weight heparin. Reasons claimed for non-use of pharmacologic prophylaxis included concerns about elevated INR, thrombocytopenia, and hepatic insufficiency. The results of the survey are of significant interest, since current data suggest a significant rate of DVT and VTE following liver surgery. The evidence that VTE prophylaxis causes hemorrhagic complications is limited and likely does not justify current practices expressed in the survey.

While laparoscopic distal pancreatectomy (LDP) has gained popularity amongst HPB surgeons, the cost analysis of these procedures remains in question. *Rutz et al.* report their experience in 115 patients who underwent distal pancreatectomy, either by laparoscopic or open approach. There was a higher OR cost of LDP but overall costs were reduced, as was the length of stay, suggesting that LDP is more cost effective than open distal pancreatectomy. The role of drain placement following hepatectomy has been an area of controversy. *Butte et al.* found that those with an intraoperative perihepatic drain (IPD) had higher postoperative complications and a similar need for second drain placement in spite of the IPD. The authors conclude that IPD use does not decrease the rate of fluid collections and suggest that IPD should be reserved for exceptional cases.

The role of resection for hepatic hemangioma remains ill-defined. *Miura et al.* reported 241 patients who underwent resection from 6 centers. 85% of candidates were female with a median hemangioma size of 8.5cm. 85% had surgery performed for abdominal symptoms, increasing size, and patient anxiety. Only three patients had suffered a life threatening complication necessitating resection. 90 day mortality was 0.8% (n = 2) but 63% of symptomatic patients reported symptom improvement after resection. The authors conclude that hemangioma resection can be safely performed at high volume centers but development of severe complications is a very rare event, challenging additional indications for hemangioma resection. These procedures should be undertaken only for symptoms not manageable using other strategies.

Postoperative complications following distal pancreatectomy remain an area for improvement. *Lee et al.* investigated the American College of Surgeons Nations Surgical Quality Improvement Project (ACS-NSQIP) results in 655 patients undergoing distal pancreatectomy from nine centers and developed a postoperative morbidity index (PMI). Complications occurred in 27%, with bleeding/transfusion and organ space infection representing the most common complications. Subgroup analysis demonstrated PMI did not vary based on laparoscopic vs open approach. The authors concluded that PMI allowed estimation of both frequency and severity of complications and provided an important measure of risk assessment.

Lee et al. investigated recurrence patterns of hepatocellular carcinoma (HCC) in 320 patients undergoing resection between 1992 and 2012 and found a cumulative 5-year recurrence of 62%. Patients within Milan criteria (MC) had better survival outcomes. Regardless of MC status, patients with HCC undergoing resection either remain disease free or developed recurrence within Milan criteria after liver resection, suggesting that these patients may be eligible for salvage liver transplantation.

The use of octreotide for prevention of pancreatic fistula and intraabdominal abscess following pancreatic surgery has been controversial. *McMillan et al.* investigated the role of prophylactic octreotide in 1,018 Whipple procedures performed between 2001 and 2013. 391 (38%) patients received octreotide, with clinically relevant postoperative pancreatic fistula (CR-POPF) occurring *more* frequently when octreotide was used (21 vs 7%), especially when there was an advanced fistula risk score (FRS). Octreotide use correlated with an increased length of hospital stay. The authors concluded there was no benefit from octreotide use for POPF. Such results suggest that the current formulation of octreotide should not be utilized as a POPF mitigation strategy.

The selected highlighted papers in this issue should continue to propel *HPB* to even greater heights in coming years and inform HPB surgeons from around the world of current state of the art practice.

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